

## CLAIMS

What is claimed is:

1. A method for adjusting a probe card, comprising:  
placing a probe card in a prober;  
measuring a first distance from a know position to a position of said probe card;  
comparing via microprocessor means said first distance to a second distance to  
determine a variance therebetween; and,  
when said microprocessor determines said variance exceeds a determined value,  
electrically signaling means for transmitting energy to said probe card to selectively  
deflect said probe card to control the geometric planarity of said probe card.
2. The method of claim 1 wherein said comparing and signaling are done  
repetitively until said variance does not exceed said determined value.
3. The method of claim 2 wherein said measuring is with an optical sensor.
4. The method of claim 3 wherein said microprocessor is in a test head on said  
prober.
5. The method of claim 3 wherein said microprocessor is in a tester that is physically  
separate from said prober and is connected thereto by means for data communication.
6. The method of claim 3 wherein said means for transmitting energy transmits  
thermal energy to said probe card.

7. The method of claim 3, wherein said probe card comprises a bi-metallic element connected thereto to impart deflection.

8. The method of claim 1 wherein said measuring is with an optical sensor.

9. The method of claim 1 wherein said microprocessor is in a test head on said prober.

10. The method of claim 1 wherein said microprocessor is in a tester that is physically separate from said prober and is connected thereto by means for data communication.

11. The method of claim 1 wherein said means for transmitting energy transmits thermal energy to said probe card.

12. The method of claim 1, wherein said probe card comprises a bi-metallic element connected thereto to impart deflection.

13. A system for adjusting geometric planarity of a probe card, comprising:  
a prober for receiving a probe card;  
means for measuring a distance indicating a position of said probe card;  
computer means for comparing said first distance to a second distance to determine a variance therebetween; and,

means for electrically signaling in response to said variance exceeding a value, said means for signally transmitting a signal to activate means for transmitting energy to said probe card to selectively deflect said probe card to control the geometric planarity of said probe card.

14. The system of claim 13 comprising an energy transmissive element which is a thermal element employing thermal energy to selectively deflect a portion of said probe card.

15. The system of claim 13 and further including a temperature sensor for monitoring temperature corresponding to deflection of said probe card.

16. The system of claim 13 and further including a stiffening element attached to a face of said probe card and adapted to provide structural resistance to planarity deflection of said probe card.

17. The system of claim 13 and further comprising means for facilitating radial expansion/contraction of said probe card with respect to a stiffening element.

18. The system of claim 13 and further including a multi-layer element having a first layer and a second layer, said first layer and said second layer having different rates of expansion per unit of energy, said multi-layer element being attached to said probe card,

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